Genesys Info Mart Deployment Guide

Supported Topologies

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Supported Topologies

Genesys Info Mart supports a number of data-source and Genesys Info Mart topologies. This page discusses various topology considerations.

Provided that the requirements for storage of ICON details are observed, the Genesys Info Mart architecture is flexible and scalable. The topology that you choose for each data source depends on several deployment-specific factors, including the number of sites, the data network capacity between sites, the interaction volume, and the required level of data-source redundancy or high availability (HA). For example, supported topologies can include:

- Single- or multi-site deployments, with one T-Server per site or several T-Servers per site.
- For the deployment as a whole or on each site, a single media type or data domain (for example, voice only) or a combination (for example, voice and multimedia; voice and Outbound Contact; or voice and Outbound Contact and multimedia).
- Common components located at one of the data-source sites or at some other, central location. Common components include the Configuration Server and the Genesys Info Mart application and Info Mart database.

Review Interaction Concentrator Topologies and the topologies illustrated on the Topology Diagrams page to determine which ones meet your contact center's needs for performance and HA.

Data Domains

The Interaction Concentrator server (ICON) monitors data sources and stores data about data-source activity in the Interaction Database (IDB). Genesys Info Mart extracts data from one or more IDBs, according to configuration. Genesys Info Mart extracts each of the following data domains separately:

- ICON Configuration details — The data source for Configuration details is Configuration Server. **[+] Tell me more**

  ICON Configuration details include:

  - Configuration objects (such as a DN, Person, Skill, or Place)
  - Configuration object relationships (that is, associations between configuration objects, such as a Person assignment to a Group)

- ICON Voice details — The data source for Voice details is T-Server. **[+] Tell me more**

  ICON Voice details include:

  - Voice interaction data
  - User data, which includes:
    - Call-related user data. Call-related user data is KVP data that is attached to TEvents or sent in UserEvents, with UserEvent-based data typically being communicated post–call event.

    - Other KVP data that is communicated through UserEvents. UserEvent data originating from Genesys Callback is an example.
  - Agent login data
  - Agent state and agent state reason details, including the ability to associate after-call-work with voice interactions
  - DND mode details
  - Virtual-queue data

> **Important**
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> In this document, the term *T-Server* is used generically to refer to all T-Server types (premise and network TDM Voice, SIP Server, IVR Server, and Virtual T-Server).

- ICON Multimedia details — The data source for Multimedia details is Interaction Server. **[+] Tell me more**

  ICON Multimedia details include:

  - Multimedia interaction data
  - Multimedia attached data, including EventCustomReporting user data for Focus Time.
  - Multimedia agent login data
  - Multimedia agent state and agent state reason details
  - Virtual-queue data
- ICON Outbound Contact details — The data source for Outbound Contact details is Outbound Contact Server (OCS). **[+] Tell me more**

  Outbound Contact details include:

  - History and results of campaigns, chains, and contact attempts
  - Associations between Outbound Contact objects (such as campaigns) and contact center objects (such as agent groups or place groups)
  - Precalculated Outbound Contact metrics

Genesys Info Mart has specific minimum requirements for the types of ICON details that must be included in the deployment. For more information, see Genesys Info Mart Requirements for ICON Details Storage.

Interaction Concentrator Topologies

In a contact center that has a large Genesys configuration environment or that processes high call volumes — possibly, with large amounts of KVP user data — you can improve performance of both ICON and Genesys Info Mart by deploying multiple ICON instances to collect data for a particular data domain. When data is stored in multiple IDBs, Genesys Info Mart extracts data from these IDBs in

parallel, thus decreasing the extraction time.

Genesys Info Mart Requirements for ICON Details Storage

The Interaction Concentrator topologies that Genesys Info Mart supports are similar for all types of ICON details, except for the following special requirements:

- Your deployment must include only one IDB (or one HA set of redundant IDBs) that stores Configuration details.
- Your deployment must include at least one IDB (or one HA set of redundant IDBs) that stores either Voice or Multimedia details.
- You can mix partitioned and non-partitioned IDBs for Voice details or Outbound Contact details within the same deployment.
- Each ICON application must populate its own IDB. In other words, consider each ICON-IDB pair (*Interaction Concentrator instance*) a unit.
- You can have one instance or multiple Interaction Concentrator instances (or HA sets) that store Voice, Multimedia, or Outbound Contact details.
- Each Interaction Concentrator instance can store data from one or multiple instances (or HA pairs) of T-Server, Interaction Server, or OCS, as applicable. In other words, the relationship between the data source(s) and Interaction Concentrator can be one-to-one, many-to-one, or many-to-many.
  If your deployment includes multiple Interaction Servers, see Login Session Consideration in the *ICON Deployment Guide* for additional information.

In Genesys Info Mart releases earlier than 8.5.007, the following additional requirements apply to all supported topologies:

- Genesys recommends that each Interaction Concentrator instance (or HA set) process and store data for only one data domain.
  - You must use separate Interaction Concentrator instances (or HA sets) for Voice details and Multimedia details.
  - You can combine storage of Outbound Contact details with Voice details. However, Genesys recommends that you use separate Interaction Concentrator instances (or HA sets) to store Voice and Outbound Contact details.
  - You can combine storage of Configuration details with any of the other types of ICON details. However, Genesys recommends that you use a separate Interaction Concentrator instance to store Configuration details.
    To minimize the possibility of missing configuration data, Genesys further recommends that you co-locate the Configuration details IDB on the same host as the Configuration Database (see Recommendations on Hosting).

ICON Roles

The **role** option in the ICON application specifies the type of data that each ICON instance processes; similarly, the **role** option in the Interaction Concentrator DAP specifies the type of data that the ICON instance stores in IDB. For a thorough discussion of ICON roles, see the *Interaction Concentrator Deployment Guide* for your release. For more information about setting the roles that are required for

Genesys Info Mart, see Configuring the ICON application.

When you plan your deployment, consider the following requirements for the various data domains.

ICON Configuration details

You cannot have more than one ICON instance (or HA set) monitoring the same Configuration Server (or HA pair) and storing configuration data in the same IDB. To store Configuration details, the **role** option of the ICON application must contain the value `cfg`. Be aware that the default value of the ICON role option is `all`. If you have more than one ICON application in your deployment, ensure that you specifically exclude `cfg` from the value of the **role** option in the ICON applications that will not be storing Configuration details.

ICON Voice or Multimedia details

- The ICON application(s) must be configured to store interaction activity, attached data, virtual queue, resource login, and agent state and work mode details.
  - In releases earlier than 8.5.016.04, the **role** option of the ICON application must contain the values `gcc`, `gud`, and `gls`.
  - Starting with release 8.5.016.04, Genesys Info Mart does not require the `gcc`, `gud`, and `gls` values to occur together. In multimedia deployments with Interaction Server Cluster, Genesys Info Mart release 8.5.016.04 and later supports scenarios where each Interaction Server in the cluster is connected to a separate ICON (or ICON HA pair) and, to meet the Login Session Consideration requirement noted above, only one of the ICONs (or ICON HA pairs) has the `gls` role. To improve agent state reporting in these scenarios, Genesys recommends setting the populate-sm-busy-from-mm-ixns configuration option to `true`.
- Optionally, the ICON application may also be configured to store UserEvent-based and, starting with ICON release 8.1.507.06, CustomReporting-based KVP data, in which case you must also configure options in the **[custom-states]** section of the ICON application (**EventData** or **store-event-data**) as required.
- A single ICON application (or a single HA set of redundant ICON applications) must record all activity for a particular agent. If, for example, a particular agent in your contact center logs in to two switches, the same ICON application (or the same HA set of redundant ICON applications) must monitor both switches.

> **Important**
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> It is very important to configure the DN objects for virtual queues under the Switch object(s) for the respective media types: virtual queues for voice interactions under your traditional telephony switch, and virtual queues for multimedia interactions under your multimedia switch. Otherwise, if your deployment includes both voice and multimedia but you configure all the virtual queues under only one of the switches, Genesys Info Mart will not process virtual-queue data for the other data domain.

ICON Outbound Contact details

In all Genesys Info Mart topologies for ICON Outbound Contact details, the **role** option of the ICON application must contain the value `gos`. For a dedicated ICON, the **role** option must contain only `gos`.

All ICON details

In all Genesys Info Mart topologies, each ICON must use only one DAP to access its IDB. For example, to store data for a Voice or Multimedia details ICON configured with **role**=`gcc,gud,gls`, do not use separate DAPs for the `gcc`, `gud`, and `gls` ICON providers. Ensure that the **role** configured in the **[callconcentrator]** section of the DAP matches the ICON **role**.